

AMENDMENTS TO THE CLAIMS:

Claim 1. (Currently amended) A magnetic bearing control device for controlling a magnetic bearing for supporting a rotor in a non-contact manner, said magnetic bearing control device comprising:

a digital processor which controls said magnetic bearing using a magnetic bearing control drive signal; and

a counter for accumulating and counting an actual work time of a designated managed component based upon said magnetic bearing control drive signal,

wherein said digital processor performs a comparison between the accumulated actual work time of the managed component counted by said counter and a preset maintenance time, and outputs a signal indicating start of maintenance operation of said managed component on the basis of the result of the comparison.

Claim 2. (Original) The magnetic bearing control device according to claim 1, wherein said digital processor inhibits the activation of said magnetic bearing control device, after the accumulated actual work time of the managed component counted by said counter exceeds a preset limit time.

Claim 3. (Original) The magnetic bearing control device according to claim 1, wherein said digital processor comprises a function of said counter.

Claim 4. (Original) The magnetic bearing control device according to claim 2, wherein said digital processor comprises a function of said counter.

Claim 5. (Currently amended) The magnetic bearing control device according to claim 1, further comprising:

a display portion for displaying a message or an image on the basis of said signal indicating the start of maintenance operation outputted from the digital processor.

Claim 6. (Currently amended) The magnetic bearing control device according to claim 1, further comprising:

a voice output portion for outputting a sound on the basis of said signal indicating the start of maintenance operation outputted from the digital processor.

Claim 7. (Previously presented) The magnetic bearing control device according to claim 1, further comprising:

a data input device which allows a user to set said preset maintenance time.

Claim 8. (Previously presented) The magnetic bearing control device according to claim 2, further comprising:

a data input device which allows a user to set said preset maintenance time and said preset limit time.

Claim 9. (Currently amended) A magnetic bearing controller comprising:

a processor that controls a magnetic bearing using a magnetic bearing control ~~drive~~ signal; and

a counter that accumulates and counts an actual work time of a managed component based upon said magnetic bearing control ~~drive~~ signal,

wherein said processor further compares the accumulated actual work time with a preset maintenance time.

Claim 10. (Previously presented) The controller of claim 9, wherein said processor outputs a maintenance signal based upon said comparison.

Claim 11. (Previously presented) The controller of claim 10, wherein said processor outputs said maintenance signal when said accumulated actual work time is greater than or equal to said preset maintenance time.

Claim 12. (Previously presented) The controller of claim 9, wherein said processor further compares the accumulated actual work time with a preset limit time.

Claim 13. (Previously presented) The controller of claim 12, wherein said processor inhibits activation of said magnetic bearing based upon the comparison of said accumulated actual work time with a preset limit time.

Claim 14. (Previously presented) The controller of claim 13, wherein said processor inhibits activation of said magnetic bearing when the accumulated actual work time is greater than or equal to said preset limit time.

Claim 15. (Previously presented) The controller of claim 9, further comprising a display that is responsive to display a maintenance signal based upon said comparison.

Claim 16. (Previously presented) The controller of claim 9, further comprising a notification device that is responsive to display a maintenance signal based upon said comparison.

Claim 17. (Previously presented) The controller of claim 9, further comprising a data input device adapted to receive said preset maintenance time.

Claim 18. (Currently amended) A method for controlling a magnetic bearing comprising:
controlling said magnetic bearing using a processor that provides a magnetic bearing control drive signal;
counting and accumulating an actual work time of said magnetic bearing using a counter that counts and accumulates the actual work time based upon said magnetic bearing control drive signal; and
comparing said actual work time and a preset maintenance time using said processor.

Claim 19. (Previously presented) The method of claim 18, further comprising outputting a maintenance signal based upon said comparison.

Claim 20. (New) The device of claim 1, wherein said digital processor outputs an instruction to the counter to count the actual work time in response to outputting the magnetic bearing control signal to the magnetic bearing.

Claim 21. (New) The device of claim 20, wherein the counter initiates counting in response to the instruction from the digital processor to count the actual work time.

Claim 22. (New) The device of claim 3, wherein the counter initiates counting of the actual work time in response to the magnetic bearing control signal being output to the magnetic bearing.

Claim 23. (New) The controller of claim 9, wherein the counter initiates counting of the actual work time in response to the magnetic bearing control signal being output to the magnetic bearing.

Claim 24. (New) The controller of claim 23, wherein the processor outputs an instruction to the counter to initiate counting of the actual work time in response to the magnetic bearing control signal being output to the magnetic bearing.

Claim 25. (New) The method of claim 18, wherein said counter initiates counting of the actual work time in response to the magnetic bearing control signal being provided to the magnetic bearing.

Claim 26. (New) The method of claim 18, further comprising providing an instruction to initiate counting of the actual work time in response to the magnetic bearing control signal being provided to the magnetic bearing.